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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/872,944

06/01/2001

Jeffrey M. Powell

LBRE:040

4093

7590

11/05/2003

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EXAMINER

TOATLEY, GREGORY J

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/872,944

Applicant(s)

POWELL ET AL.

Examiner

Gregory J. Toatley, Jr.

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 3/20/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-21 is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6 and 10 is/are rejected.
- 7) ☒ Claim(s) 2,4 and 7-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 46.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statements received January 8, 2002, July 29, 2002 and March 20, 2003 have been considered and entered into the application. See attached 1449.

### ***Priority***

The applicant has claimed in their declaration that the instant application claims benefit to the provisional application 60/208617 under 35 USC 120. This is incorrect. Priority claims to a provisional application are provided under 35 USC 119 (e). Correction is required. See MPEP 201.04 (b)

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the inverter controller as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the inverter controllers must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 305, 306 and 407 (directed toward bypass elements). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Element number 705 (17:23) is not shown in fig 7, and element number 905 (18:15). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Specification***

6. The examiner respectfully suggests that the Applicant carefully review the specification for idiomatic and grammatical errors, which may have inadvertently overlooked.

7. The disclosure is objected to because of the following informalities:

- On page 8, line 1, "rectifier 303" should be "rectifier 302";
- On page 18, line 21 "902" should be "903".

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Appropriate correction is required.

### ***Claim Objections***

8. Claims 4 and 9 are objected to because of the following informalities:

- In claim 4, "the second inverter" does not appear to have antecedent basis. The "the" should be changed to an "a".

- In claim 9, section a, the second line, the phrase "...the switch two silicon controlled rectifiers..." appears to be incomplete.

Appropriate correction is required.

### ***Art Rejection Rationale***

At the outset, the examiner notes that claims are to be given their broadest reasonable interpretation during prosecution. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); In re Prater, 415 F.2d 1393, 1404, 162 USPQ 541, 550 (CCPA 1969); In re Yamamoto, 740 F.2d 1569, 222 USPQ 934 (Fed. Cir. 1984); Burlington Indus. V. Quigg, 822 F.2d 1581, 3 USPQ2d 1436 (Fed. Cir. 1987); In re Morris, 43 USPQ2d 1753, 1756 (Fed. Cir. 1997). In responding to this Office action, applicants are reminded of the requirements of 37 CFR §§ 1.111 and 1.119 that applicants specifically point out the specific distinctions believed to render the claims patentable over the references in presenting responsive arguments. See M.P.E.P. § 714.02. The support for any amendments made should also be specifically pointed out. See M.P.E.P. § 2163.06.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 3, 5, 6, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by the reference of Baker et al. (US 4782241 A), admitted prior art (APA).

The reference discloses the limitations of the claims as follows:

1. An uninterruptible power supply (**10**) having an input connected to an input power source (**utility input**) and an output connected to a critical load (**90**), the uninterruptible power supply comprising: a) a utility disconnect static switch (**82**) comprising two silicon controlled rectifiers connected in anti-parallel coupled between the input and an input bus (**see fig. 3**); b) a battery bus (**114**); c) an inverter coupled between the battery bus and the output (**see lines 114 and 105**); and d) an inverter controller (**154**) that, upon detection of an input power source fault causing an input voltage magnitude increase, controls the inverter to generate on the input bus a voltage of the same polarity and greater magnitude than the input voltage, thereby commutating the utility disconnect static switch.

The methods of claims 3 and 10 are disclosed in the description of the operation of the UPS in claim 1 (see the description of figs 2A – 2C). The sensing of a current and voltage as claimed in claims 5 and 6 are performed by at least by the operation of elements 304, 308 and 432.

***Allowable Subject Matter***

11. Claims 11 – 21 are allowed.

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12. Claims 2, 4, 7, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

- In claim 2, prior art of record does not teach or suggest the connection of a series inverter to a secondary winding of a transformer as claimed;
- In claims 4 and 9, prior art of record does not teach or suggest the control of a series inverter to commutate a static switch as claimed;
- In claim 11, prior art of record does not teach or suggest the gate commutated switches in combination with the clamping circuit as claimed;  
and
- In claim 19, prior art of record does not teach or suggest the method of operating static switch which comprises two anti parallel gate commutated switches in response to voltage increase as claimed.

***Pertinent Prior Art***

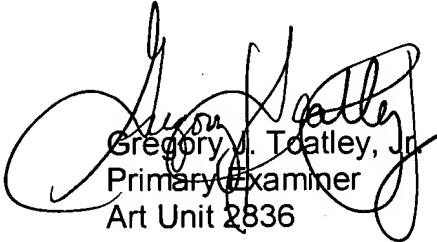
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference of Faria et al. (US 6295215 B1) teaches of the use of a two-inverter battery backed power supply system similar to the disclosed invention. The reference of Yamamoto et al. (US 6051893 A) teaches of the use of gate-commutated switches (thyristors) in an anti-parallel configuration in power supply.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Toatley, Jr. whose telephone number is 703-308-7889. The examiner can normally be reached on Mon. - Fri. 7:00 a.m. to 3 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703) 308-3119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Gregory J. Toatley, Jr.  
Primary Examiner  
Art Unit 2836

GJT Jr.